NC/QC/YD/2020-21/AL/W3-CB2A **Date: 26-04-2021**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).
{Project*: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Newtown Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Umesh.N, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	29-03-21	26-04-21	28	22500	515	22.89	**22.52**
	002	‘’	“	‘’	“	505	22.44	
	003	‘’	“	‘’	“	500	22.22	

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ.
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NC/QC/YD/2020-21/AL/W3-CB3A **Date: 29-04-2021**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).
{Project*: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Newtown Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Umesh.N, Bangalore.

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	01-04-21	29-04-21	28	22500	500	22.22	**22.74**
	002	"	"	"	"	520	23.11	
	003	"	"	"	"	515	22.89	

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/AL/W3- WMM1 Date: 07-04-2021

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Newtown Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Umesh.N, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTII Specifications, V Revision-2013
53.00	100.00	100
45.00	97.30	95-100
26.50	---	-
22.40	69.10	60-80
11.20	44.75	40-60
4.75	28.30	25-40
2.36	17.55	15-30
0.600	12.90	8-22
0.075	4.25	0-5

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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Date: 07-04-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)- 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M o R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**26.40 %**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.71 %**	Not more than 35.0 %
3.	Water absorption, %	**0.43 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/AL/W3- WMM2 Date: 12-04-2021

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Newtown Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Umesh.N, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**98.60**	95-100
26.50	**---**	-
22.40	**72.30**	60-80
11.20	**57.65**	40-60
4.75	**31.80**	25-40
2.36	**24.35**	15-30
0.600	**11.05**	8-22
0.075	**3.90**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

Date: 12-04-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.90 %**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**27.31 %**	Not more than 35.0 %
3.	Water absorption, %	**0.42 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/AL/W3- WMM3 **Date: 12-04-2021**

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Newtown Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Umesh.N, Bangalore.

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**95.30**	95-100
26.50	**---**	-
22.40	**71.90**	60-80
11.20	**52.40**	40-60
4.75	**36.55**	25-40
2.36	**20.65**	15-30
0.600	**19.30**	8-22
0.075	**4.75**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

Date: 12-04-2021

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.62 %**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**29.79 %**	Not more than 35.0 %
3.	Water absorption, %	**0.44 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/AL/W3-BD1 **Date: 16-04-2021**

1. TEST REPORT ON BITUMEN SAMPLE:

Sub: Testing of Bitumen sample VG-30 Grade.
{Project*: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Newtown Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Umesh.N, Bangalore.
Technical Reference: Ministry of Road Transport and Highways, V Revision, 2013 and IS 73: 1992.

TABLE 1.1 ;

SL No	Details	Test Results	Requirements as per I.S 73 –1992 Specifications
1.	Penetration at 25^0 C	**52.90^0 C**	Min. 45
2.	Ductility Value at 25^0 C	**106.20 cm**	40
3.	Flash point	**243^0 C**	Minimum 220^0 C
4.	Softening point	**51.10^0 C**	Min. 47

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/AL/W3-CD1 **Date: 16-04-2021**

1. TEST REPORT ON COARSE AGGREGATE:

Sub: Testing of Coarse Aggregate used in Dense Graded Bituminous Macadam.
{Project*: Improvements to roads and drains at Ambabhavani Layout (Part-1) In Ward No.03.}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Newtown Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: Umesh.N, Bangalore.

TABLE 1.1 ;

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**23.41%**	Not more than 27.00 % for DBM
2.	Combined Flakiness and Elongation index, %	**26.72%**	Not more than 35.0 %
3.	Water absorption, %	**0.42%**	Not more than 2.0 %
4.	Specific gravity	**2.61**	-------
5.	Soundness	**6.51 %**	Max. 12 % in Sodium Sulphate

The result of the materials tested meets the standards and hence can be used for the work.

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